

§ 401.7

which the bulbous bow projects beyond the stem.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[47 FR 51121, Nov. 12, 1982, as amended at 61 FR 19551, May 2, 1996; 70 FR 12970, Mar. 17, 2005]

§ 401.7 Fenders.

(a) Where any structural part of a vessel protrudes so as to endanger Seaway installations, the vessel shall be equipped with only horizontal permanent fenders—

(1) That are made of steel, hardwood, or teflon or a combination of two or all of these materials, are of a thickness not exceeding 15 centimeters, with well tapered ends, and are located along the hull, close to the main deck level; and

(2) On special application, portable fenders, other than rope hawsers, may be allowed for a single transit if the portable fenders are—

(i) Made of a material that will float; and

(ii) Securely fastened and suspended from the vessel in a horizontal position by a steel cable or a fiber rope in such a way that they can be raised or lowered in a manner that does not damage Seaway installations.

(b) Tires shall not be used as fenders.

(c) On special application, ships of unusual design may be permitted to utilize temporary or permanent fenders not greater than 30 cm in thickness.

[61 FR 19551, May 2, 1996, as amended at 70 FR 12970, Mar. 17, 2005; 74 FR 18994, Apr. 27, 2009]

§ 401.8 Landing booms.

(a) Vessels of more than 50 m in overall length shall be equipped with at least one adequate landing boom on each side.

(b) Vessels' crews shall be adequately trained in the use of landing booms.

(c) Vessels not equipped with or not using landing booms must use the Seaway's tie-up service at approach walls using synthetic mooring lines only. Maximum of 4 lines will be handled by

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Seaway personnel and the service does not include let go service.

[70 FR 12970, Mar. 17, 2005, as amended at 72 FR 2620, Jan. 22, 2007; 74 FR 18994, Apr. 27, 2009; 76 FR 13089, Mar. 10, 2011]

§ 401.9 Radio telephone and navigation equipment.

(a) Self-propelled vessels, other than pleasure craft of less than 20.0 m in overall length, shall be equipped with VHF (very high frequency) radio-telephone equipment.

(b) The radio transmitters on a vessel shall:

(1) Have sufficient power output to enable the vessel to communicate with Seaway stations from a distance of 48 km; and

(2) Be fitted to operate from the conning position in the wheelhouse and to communicate on channels 11, 12, 13, 14, 17 and 66a.

(c) Gyro compass error greater than 2 degrees must be serviced prior to transiting the Seaway, and if noted during a Seaway transit, it must be reported to the nearest Seaway station and the gyro compass must be serviced at the first opportunity.

(d) When magnetic compass error is greater than 5 degrees, the vessel is required to have the compass swung and a new deviation card produced, unless the "record of deviations" has been properly maintained and verified.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and secs. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 40 FR 11721, Mar. 13, 1975; 47 FR 51121, Nov. 12, 1982; 48 FR 20690, May 9, 1983; 61 FR 19551, May 2, 1996; 70 FR 12970, Mar. 17, 2005; 79 FR 12659, Mar. 6, 2014]

§ 401.10 Mooring lines.

(a) Mooring lines shall:

(1) Be of a uniform thickness throughout their length;

(2) Have a diameter not greater than 28 mm for wire line and not greater than 64 mm for approved synthetic lines;

(3) Be fitted with a hand spliced eye or Flemish type mechanical spliced eye of not less than 2.4 m long for wire lines and 1.8 m long spliced eye for approved synthetic lines;

(4) Have sufficient strength to check the vessel; and

(5) Be arranged so that they may be led to either side of the vessel as required.

(6) Be certified and a test certificate for each mooring line containing information on breaking strength, material type, elongation and diameter shall be available onboard for inspection.

(b) Unless otherwise permitted by an officer, vessels greater than 150 m shall only use wire mooring lines with a breaking strength that complies with the minimum specifications set out in the table to this section shall be used for securing a vessel in lock chambers.

(c) Synthetic lines must be used for mooring at approach walls when using tie-up services at tie-up walls and docks within the Seaway.

(d) Notwithstanding paragraphs (a) through (c) of this section, nylon line is not permitted.

TABLE

Overall length of ships	Length of mooring line	Breaking strength
40 m or more but not more than 60 m.	110 m	10 MT
More than 60 m but not more than 90 m.	110 m	15 MT
More than 90 m but not more than 120 m.	110 m	20 MT
More than 120 m but not more than 180 m.	110 m	28 MT
More than 180 m but not more than 222.5 m.	110 m	35 MT

Elongation of synthetic lines shall not exceed 20%

(e) Hand held synthetic lines if permitted by the Manager or Corporation shall meet the criteria in paragraph (a) of this section and shall have a minimum length of not less than 65 meters.

(68 Stat. 93-96, 33 U.S.C. 981-990, as amended and sec. 4, 5, 6, 7, 8, 12 and 13 of sec. 2 of Pub. L. 95-474, 92 Stat. 1471)

[39 FR 10900, Mar. 22, 1974, as amended at 47 FR 51121, Nov. 12, 1982; 48 FR 20691, May 9, 1983; 48 FR 22545, May 19, 1983; 61 FR 19551, May 2, 1996; 65 FR 52913, Aug. 31, 2000; 70 FR 12970, Mar. 17, 2005; 74 FR 18994, Apr. 27, 2009; 75 FR 10689, Mar. 9, 2010; 78 FR 16181, Mar. 14, 2013; 79 FR 12659, Mar. 6, 2014]

§ 401.11 Fairleads.

(a) Mooring lines shall:

(1) Be led at the vessel's side through a type of fairlead or closed chock, ac-

ceptable to the Manager and Corporation;

(2) Pass through not more than three inboard rollers that are fixed in place and equipped with horns to ensure that lines will not slip off when slackened and provided with free-running sheaves or rollers; and

(3) Where the fairleads are mounted flush with the hull, be permanently fendered to prevent the lines from being pinched between the vessel and a wall.

(4) When passing synthetic lines through a type of fairlead or closed chock acceptable to the Manager and the Corporation all sharp edges of the fairlead, closed chock and/or bulwark shall be rounded to protect the line from chafing or breakage.

(b) Wire lines shall only be led through approved roller type fairleads.

[39 FR 10900, Mar. 22, 1974, as amended at 70 FR 12971, Mar. 17, 2005; 74 FR 18994, Apr. 27, 2009; 76 FR 13089, Mar. 10, 2011; 77 FR 40804, July 11, 2012]

§ 401.12 Minimum requirements—mooring lines and fairleads.

(a) Unless otherwise permitted by the officer the minimum requirements in respect of mooring lines which shall be available for securing on either side of the vessels, winches and the location of fairleads on vessels are as follows:

(1) Vessels of more than 100 m but not more than 150 m in overall length shall have three mooring lines—wires or synthetic hawsers, which shall be independently power operated by winches, capstans or windlasses. All lines shall be led through closed chocks or fairleads acceptable to the Manager and the Corporation.

(i) One shall lead forward and one shall lead astern from the break of the bow and one lead astern from the quarter.

(ii) One synthetic hawser may be hand held or if wire line is used shall be powered. The line shall lead astern from the break of the bow through a closed chock to suitable bitts on deck for synthetic line or led from a capstan, winch drum or windlass to an approved fairlead for a wire line.

(2) Vessels of more than 150 m in overall length shall have four mooring